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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/088,687 | 03/21/2002 | Brian R. Odgers | 36-1531 | 4659 |

| 23117        7590        04/19/2007 | EXAMINER |
|---|---|
| NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203 | BOYCE, ANDRE D |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3623 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|---|---|---|
| 3 MONTHS | 04/19/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/088,687 | ODGERS ET AL. |
| | Examiner | Art Unit | |
| | Andre Boyce | 3623 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *10 January 2007*.

2a)☐ This action is **FINAL**.          2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1.      This Non-Final office action is in response to Applicant's amendment filed

January 10, 2007.  Claims 1, 3, 11, 13 and 15-19 have been amended.  Claims 20-

22 have been added.  Claims 1-22 are pending.


2.      The previously pending objections to claims 4-10 and 14 have been withdrawn.

The previously pending rejection to claim 3 under 35 USC §112, second

paragraph has been withdrawn.


3.      Applicant's arguments filed January 10, 2007 have been fully considered but they

are not persuasive and claims 4-10 and 14 are now rejected under Du et al (USPN

5,826,239).


### *Claim Rejections - 35 USC § 102*

4.      The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

5.      Claims 1-17 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated

by Du et al (US 5,826,239).

As per claims 1, 11, 15 and 19, Du teaches storing constraint definition data

defining constraints relating to availability of said resources for allocation to       ·

respective tasks; (column 9, lines 43-45 where HP OpenPM evaluates the rules and

performs the rule actions when the rule conditions are met, whereby the rule

conditions constitute the constraints of the resource allocation system.); storing an

initial data representation of resource availability (column 4, lines 27-28 where the

system checks a central site for availability of resource groups, whereby the central

site constitutes a storage of initial data); receiving from a resource interface,

availability data concerning availability of a resource (column 8, lines 35-38, where

the work nodes include resource allocation which constitutes the receipt of available

resources as further indicated in Figure 2, where the resource managers (28)

resolve resource assignment requests); generating a proposed data representation

of resource availability, based on the initial data representation together with said

availability data (column 13, lines 6-8, where resource status or availability is

provided); determining whether said proposed data representation is compatible with

said constraint definition data (column 4, lines 57-67 and column 5, line 1, where the

system determines the resource availability with respect to the specified activity and

forwards the information to the second computer to assign the resource to the

activity.); in the case the data is compatible with the constraint definition data,

substituting the proposed data representation for the initial data representation to

generate a new initial data representation (column 4, lines 57-67 and column 5, lines

1-5, where the LRM system assigns the available resources and updates the data in

the second computer accordingly.); and in the case the data is not compatible with

the constraint definition data, transmitting a rejection signal to at least one resource

interface (column 3, lines 34-38 where the tasks are queued when they do not meet

the constraints or resource requirements. This is equivalent to sending a reject

signal as it performs an identical function in substantially the same manner with

substantially the same results. The main purpose of sending the reject signal is to

alert the user that resources were not assigned to the task and the purpose for the

queue system is the same. Resources were not available to be assigned to the task,

but the task is posted in a queue to obtain resources when they become available.).

As per claims 2 and 12, Du teaches receiving from one resource interface further

availability data concerning availability of a resource, generating a further proposed

data representation of resource availability, based on the initial data representation

together with said further availability data (column 4, lines 57-67 and column 5, lines

1-5, where the LRM system assigns the available resources and updates the data in

the second computer accordingly. The updated information would function as further

availability data since the computer updates the resources and activities with respect

to availability information as the information changes.).

As per claims 3 and 13, recites the same limitations as claim 1 and is therefore

subject to the same art rejection. Du teaches multiple resource interfaces in Figure 1

where there are multiple users and machines.

As per claim 4, Du teaches at least one resource interface is provided with at

least one resource profile, the resource profile comprising data in respect of a

resource (i.e., local resource manager (LRM) including resource database 150,

column 13, lines 41-47), the method further comprising the steps of: receiving at a

resource interface a rejection signal (i.e., unavailable resource state, column 15,

lines 55-60); reviewing a resource profile provided with respect to that resource

interface; and outputting availability data to the data processing means dependent

on the outcome of the review (i.e., LRM tracks dynamic status information including

availability and work load, column 13, lines 43-47).

As per claim 5, Du teaches at least first and second data types in respect of a

resource, the first data type comprising at least one resource attribute (i.e., resource

name and capability, column 15, line 1) and the second data type comprising

availability commitments of the resource (i.e., resource status, column 15, line 1).

As per claim 6, Du teaches a priority indicator for at least one availability

commitment of the resource, and wherein said step of reviewing a resource profile

comprises reviewing the priority indicator (i.e., two aspects of resource status

including state and load, column 15, lines 50-54).

As per claim 7, Du teaches said rejection signal comprises an identifier for a

selected resource, or for a selected set of resources (i.e., state of the resources

including not available, column 15, lines 50-59), and wherein said steps of reviewing

a resource profile and outputting availability data to the data processing means

dependent on the outcome of the review comprise reviewing the resource profile for

the presence of said identifier and outputting availability data only if said identifier is

present (e.g., state(R) and load (R) to denote the current state and load of R, column

15, lines 50-54).

As per claim 8, Du teaches subsequent to generating and transmitting said

rejection signal, triggering termination of tasks being carried out in respect of a

common work requirement to which the rejection signal is related (i.e., trigger implementation, column 18, lines 51-57).

As per claim 9, Du teaches said step of triggering termination is carried out after a predetermined time has elapsed during which no availability data has been received from a resource interface (i.e., temporal status specification, column 16, lines 37-40).

As per claim 10, Du teaches said constraint definition data comprises at least two sets of constraint definition data (i.e., state and load data, column 15, lines 50-54), and the method further comprises: receiving via a user interface a proposed modification to a first set of constraint definition data (i.e., predictable change status, column 16, lines 30-32); reviewing the proposed modification against the second set of constraint definition data; in the case that the proposed modification is compatible with the second set, modifying the first set accordingly; and in the case that the proposed modification is not compatible with the second set, transmitting a rejection signal to the user interface (i.e., determination of whether the change status state is available or not available, column 16, lines 33-37).

As per claim 14, Du teaches a resource profile comprises at least one data element and a rejection message comprises at least one data element (i.e., attributes of the resource, column 15, line 1), review of a resource profile comprising matching the data element from a rejection message against the data element or elements in a resource profile (i.e., match against status and capability of the resource).

As per claim 16, Du teaches the signal input is also for receiving a management

signal input from at least one management interface, one or more of said

management signals comprising constraint data with respect to at least one

resource, and the apparatus further comprises means for using constraint data

received from a management interface to enter or change data in the constraint

definition data store (column 19, lines 60-67 where OpenPM contains a rule node

which contains a list of condition-action rules or constraints and as indicated in

Figure 4 there is a database manager (64) that interacts with the OpenPM database

which contains the constraint definition data. In addition, column 9, lines 30-34 teach

that the system can interact with external environments.), and means to categorize

data in the constraint definition data store according to source type (column 17, lines

40-43 where each resource group has an ID associated with it that acts as a means

of sorting or categorizing the constraint information), the apparatus being further

arranged, on review of the content of the constraint definition data store, to resolve

any conflict in constraint data relevant to a task acceptance signal according to its

source type (column 10, lines 48-56 where the resource managers (28) are used to

resolve any conflicts between the constraints and the resources so that the

resources can be assigned.).

As per claim 17, Du teaches the constraint definition data store is categorized by

location in the store. (As noted in Figure 1, the system contains databases. It is well

known that databases store information in files where each file would have a unique

"address" or location in the database.)

As per claims 20 and 21, Du teaches said constraint definition data define

constraints, relating to the allocation of tasks to respective resources (LRM with

control over resources, column 13, lines 41-43).

As per claim 22, Du teaches a task acceptance signal from a resource interface

and wherein the apparatus is arranged in use to respond to receipt of a task

acceptance signal by reviewing the content of the constraint definition data store

and, depending on the result of the review to output to at least one resource

interface a notification signal identifying at least one task for which resource is

required, or to allocate resource to a task (i.e., task status state and load, including

task availability, wherein the task being available would include task acceptance,

column 15, lines 50-59).


### Claim Rejections - 35 USC § 103

6.      Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al

(US 5,826,239).

As per claim 18, Du teaches the source of data in the third category being

requirements of an operational support system for use in performing allocated

task(s) (column 11, lines 37-50 where the service management layer (102) functions

as a support system for performing the tasks) and the apparatus is further adapted

to store at least a third category of data in the constraint definition data store

(column 9, lines 41-44 where the system evaluates the rules or constraints and

performs the rule actions when the rule conditions are met. Whereby "rules"

indicates more than one rule.) Official notice is taken that it is old and well known

that "rules" may indicate three or more. Therefore it would have been obvious to one

of ordinary skill in the art to modify the system of Du with three (or more) rules to

provide means for allowing more constraints and consequently, more accurate

resource allocation results.

### Response to Arguments

7.      In the Remarks, Applicant argues that there is no suggestion in Du et al that the

local resource manager should react to the unpredictable failure by testing the

resultant aggravated availability or workload against predetermined constraints, and

if that test fails, to send a rejection signal to the resource.  The Examiner respectfully

disagrees and submits that Du et al disclose unpredictable status changes, wherein

the resource can become not available (column 16, lines 57-61), thus indicating a

rejection.

### Conclusion

8.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andre Boyce whose telephone number is (571) 272-

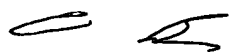6726.  The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tariq Hafiz can be reached on (571) 272-6729.  The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

adb
April 15, 2007

André Boyce
Patent Examiner
A.U. 3623